

WHAT IS CLAIMED IS:

1. An optoelectronic device for detecting marks having defined contrast patterns, comprising:

a transmitter for emitting transmitted light beams having a wavelength  $\lambda$  in a range of  $350 \text{ nm} \leq \lambda \leq 450 \text{ nm}$ ;

a transmission lens downstream of the transmitter;

a receiver for receiving received light beams and generating reception signals corresponding to the received light beams;

a receiving lens located upstream of the receiver and having an area  $A_C$  of less than or equal to  $5 \text{ cm}^2$ ;

means for guiding the transmitted light beams at the marks and for guiding reflected light beams from the marks as received light beams to the receiver; and

an evaluation unit coupled to an output of the receiver for evaluating the reception signals.

2. The optoelectronic device of claim 1, wherein the marks comprise bar codes including an alternating succession of light and dark line elements with module widths  $B$  in a range of  $0.1 \leq B \leq 0.4 \text{ mm}$ .

3. A method of detecting marks up to a distance  $d$  of  $d = 1.5 \text{ m}$ , comprising utilizing the optoelectronic device of claim 1.

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4. The optoelectronic device of claim 1, wherein the transmitter comprises a laser diode.
  5. The optoelectronic device of claim 1, wherein the marks are detectable within a predetermined depth of field, and the transmitted light beams beam have a diameter within the depth of field to a maximum of  $660\mu\text{m}$ .
  6. The optoelectronic device of claim 1, wherein the guiding means comprises a deflection unit by which the transmitted light beams are periodically guided to inside a scanning range.
  7. The optoelectronic device of claim 6, wherein the deflection unit has a rotating polygonal mirror wheel having mirror faces for reflecting the transmitted light beams and received light beams, respectively.
  8. The optoelectronic device of claim 7, wherein the polygonal mirror wheel has a structural size adapted to a diameter of the receiving lens.
  9. The optoelectronic device of claim 8, further including a housing whose dimensions are adapted to the size of the polygonal mirror wheel and to the diameter of the receiving lens.